BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Footpaths roads and Footpath to Lottegollahalli Main Road Near Jalageramma temple Road in ward No 8 Kodigehalli, Kodigehalli Sub Division.

Est Cost: =50.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M200-13.1. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications. II. By mechanical means, A. Cement concrete Grade M-15 & M-20 (P.No.137, I.No.18.20 of PW,P&IWTD SR 2016-17)								
	Culvert Slab	Cum							
	Damaged slabs		2	8.00	1.80	0.25	7.20		
							7.20	466.20	**3356.64**
2	KSRRB M200-15.2. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications. iii) Dismantling Stone Masonry B. Rubble Stone maonry in cement mortar (P.No.138, I.No.18.27 of PW,P&IWTD SR 2016-17)								
	Damaged SSM Culvert Wall	Cum	10	8.00	0.60	0.45	21.60		
							21.60	371.64	**8027.42**
3	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Lottegollahalli Jalageramma Temple								
	1st Cross		2	130.00	0.60	0.55	85.80		
	Cross Road in 1st Cross		1	20.00	0.60	0.30	3.60		
	13th Cross		2	120.00	0.60	0.30	43.20		
	15th Cross LHS		1	15.00	0.60	0.40	3.60		
	15th Cross RHS		1	30.00	0.60	0.40	7.20		
	17th Cross		1	90.00	0.60	0.40	21.60		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		2	100.00	0.60	0.40	48.00		
	6th Cross		2	165.00	0.60	0.40	79.20		
	8th Cross								
	Ch80-110 LHS		1	30.00	0.60	0.40	7.20		
	Ch0-110 RHS		1	110.00	0.60	0.40	26.40		
	10th Cross		2	85.00	0.60	0.40	40.80		
	12th Cross		2	50.00	0.60	0.40	24.00		
	New Drain								
	8th Cross								
	Ch0-80 LHS		1	80.00	0.60	0.40	19.20		
	Ch110-210 LHS		2	100.00	0.60	0.40	48.00		
	10th Cross		2	45.00	0.60	0.40	21.60		
	15th Cross LHS		1	95.00	0.60	0.40	22.80		
	15th Cross RHS		1	80.00	0.60	0.40	19.20		
	3rd Main Chowdeshwari Nagar		2	100.00	0.60	0.40	48.00		
	New Drain								

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	3rd Main Chowdeshwari Nagar		2	55.00	0.60	0.60	39.60		
	Venitech Solutions beside Rd		2	100.00	0.60	0.60	72.00		
	Over Burden Earth								
			2	150.00	1.00	0.30	90.00		
							771.00	186.92	**144115.32**
4	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab cover	Sqm							
	1st Cross		2	130.00	1.20	--	312.00		
	13th Cross		2	120.00	1.20	--	288.00		
	15th Cross		2	15.00	1.20	--	36.00		
	17th Cross		1	90.00	1.20	--	108.00		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		2	100.00	1.20	--	240.00		
	6th Cross		2	165.00	1.20	--	396.00		
	8th Cross		2	110.00	1.20	--	264.00		
	10th Cross		2	85.00	1.20	--	204.00		
	Consider 25% for Existing Slabs						462.00		
	Consider 10% for missing and Damage Slabs						-46.20		
	BS Slab Drain								
	Lottegollahalli Jalageramma Temple								
	1st Cross		2	130.00	1.35	--	351.00		
	Cross Road in 1st Cross		1	20.00	1.35	--	27.00		
	13th Cross		2	120.00	1.35	--	324.00		
	15th Cross LHS		1	15.00	1.35	--	20.25		
	15th Cross RHS		1	30.00	1.35	--	40.50		
	17th Cross		1	90.00	1.35	--	121.50		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		2	100.00	1.35	--	270.00		
	6th Cross		2	165.00	1.35	--	445.50		
	8th Cross								
	Ch80-110 LHS		1	30.00	1.35	--	40.50		
	Ch0-110 RHS		1	110.00	1.35	--	148.50		
	10th Cross		2	85.00	1.35	--	229.50		
	12th Cross		2	50.00	1.35	--	135.00		
	Consider 25% for Damaged Drain Portion						538.31		
	Consider 10% for missing and Damage Slabs						-53.83		
							900.28	80.56	**72526.66**
5	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13.(using available stones) (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Damaged Culvert	Cum							
	Flagging Course for SSM Culverts		8	8.00	0.60	0.45	17.28		
							17.28	2784.62	**48118.23**
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Damaged Culvert	Cum							
	Culvert Raising		2	8.00	0.60	0.45	4.32		
							4.32	4438.22	**19173.11**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
7	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Culverts	Sqm	10	8.00		0.45	36.00		
							36.00	102.82	**3701.52**
8	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
			10	8.00	0.60	0.100	4.80		
							4.80	5767.46	**27683.81**
9	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Culvert Slab	Sqm							
	New Culvert slabs		2	8.00	1.80	--	28.80		
	Damaged Slabs		4	8.00	1.80	--	57.60		
							86.40	5317.00	**459388.80**
10	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain / Missing	Sqm					46.20		
							46.20	825.74	**38149.19**
11	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	Lottegollahalli Jalageramma Temple	Sqm							
	15th Cross LHS		1	95.00	1.35	--	128.25		
	15th Cross RHS		1	80.00	1.35	--	108.00		
	8th Cross								
	Ch0-80 LHS		1	80.00	1.35	--	108.00		
	Ch110-210 LHS		2	100.00	1.35	--	270.00		
	10th Cross		2	45.00	1.35	--	121.50		
	3rd Main Chowdeshwari Nagar		2	55.00	1.35	--	148.50		
	Venitech Solutions beside Rd		2	100.00	1.35	--	270.00		
	Consider 10% for missing and Damage Slabs						53.83		
							1208.08	665.68	**804195.53**
12	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Cross Road in 1st Cross		1	20.00	4.00	0.20	16.00		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	0.20	155.00		
	Bad reaches		12	1.80	1.50	0.20	6.48		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
			10	2.00	1.00	0.20	4.00		
			6	1.80	2.00	0.20	4.32		
			4	4.00	4.50	0.20	14.40		
			20	0.50	5.00	0.20	10.00		
							210.20	148.76	**31269.35**
13	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Cross Road in 1st Cross		1	20.00	4.00	0.25	20.00		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	0.25	193.75		
	Bad reaches		12	1.80	1.50	0.25	8.10		
			10	2.00	1.00	0.25	5.00		
			6	1.80	2.00	0.25	5.40		
			4	4.00	4.50	0.25	18.00		
			20	0.50	5.00	0.25	12.50		
							262.75	1768.08	**464563.02**
14	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	Cross Road in 1st Cross		1	20.00	4.00	--	80.00		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	--	775.00		
	Bad reaches		10	1.80	1.50	--	27.00		
			8	2.00	1.00	--	16.00		
			6	1.80	2.00	--	21.60		
			4	4.00	4.50	--	72.00		
			20	0.50	5.00	--	50.00		
							1041.60	29.68	**30914.69**
15	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	Lottegollahalli Jalageramma Temple								
	1st Cross		1	130.00	5.50	--	715.00		
	Cross Road in 1st Cross		1	20.00	4.00	--	80.00		
			1	20.00	4.80	--	96.00		
	13th Cross		1	120.00	4.00	--	480.00		
	15th Cross		1	110.00	4.00	--	440.00		
	17th Cross		1	90.00	4.30	--	387.00		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		1	100.00	3.60	--	360.00		
	6th Cross		1	165.00	4.10	--	676.50		
	8th Cross		1	210.00	6.50	--	1365.00		
	10th Cross		1	130.00	4.00	--	520.00		
	12th Cross		1	50.00	4.60	--	230.00		
	Venitech Soln Beside Road		1	100.00	5.20	--	520.00		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	--	775.00		
							6644.50		
	Deduct prime coat						-1041.60		
							5602.90	3.18	**17817.22**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
16	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR.of 2016-17)								
	For Laying DBM	Sqm							
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	--	775.00		
	For Laying BC								
	1st Cross		1	130.00	5.50	--	715.00		
	Cross Road in 1st Cross		1	20.00	4.00	--	80.00		
			1	20.00	4.80	--	96.00		
	13th Cross		1	120.00	4.00	--	480.00		
	15th Cross		1	110.00	4.00	--	440.00		
	17th Cross		1	90.00	4.30	--	387.00		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		1	100.00	3.60	--	360.00		
	6th Cross		1	165.00	4.10	--	676.50		
	8th Cross		1	210.00	6.50	--	1365.00		
	10th Cross		1	130.00	4.00	--	520.00		
	12th Cross		1	50.00	4.60	--	230.00		
	Venitech Soln Beside Road		1	100.00	5.20	--	520.00		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	--	775.00		
							7419.50	12.72	**94376.04**
17	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)								
	For Laying DBM/Profile Correction	Cum							
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	0.05	38.75		
							38.75	7036.28	**272655.85**
18	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	Cum							
	1st Cross		1	130.00	5.50	0.04	28.60		
	Cross Road in 1st Cross		1	20.00	4.00	0.04	3.20		
			1	20.00	4.80	0.04	3.84		
	13th Cross		1	120.00	4.00	0.04	19.20		
	15th Cross		1	110.00	4.00	0.04	17.60		
	17th Cross		1	90.00	4.30	0.04	15.48		
	Lottegollahalli RMV Cluster Apartments								
	4th Cross		1	100.00	3.60	0.04	14.40		
	6th Cross		1	165.00	4.10	0.04	27.06		
	8th Cross		1	210.00	6.50	0.04	54.60		
	10th Cross		1	130.00	4.00	0.04	20.80		
	12th Cross		1	50.00	4.60	0.04	9.20		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Venitech Soln Beside Road		1	100.00	5.20	0.04	20.80		
	3rd Main Chowdeshwari Nagar		1	155.00	5.00	0.04	31.00		
							265.78	8013.60	**2129854.61**
19	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1400.00	0.10	--	280.00		
							280.00	542.72	**151961.60**
							Total Construction Cost		**4821848.605**
20	Add cost of **Waste Plastic** @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	**2998.00**	27.00	**80946.00**
	Waste = 265.78 X 141 X 8 / 100 =2998								
21							**Cost towards Preparation of DPR LS**		**48219.00**
22							**Cost towards PMC / Third Party inspection LS**		**48219.00**
								Sub Total	**4999232.60**
23							**Miscellaneous and rounding off**		**767.40**
								Total	**5000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

For Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

KEY MAP – 18. JALAGERAMMA TEMPLE